**BIM PROJECT EXECUTION PLAN**

**Light Version**

FOR

**[PROJECT TITLE]**

DEVELOPED BY

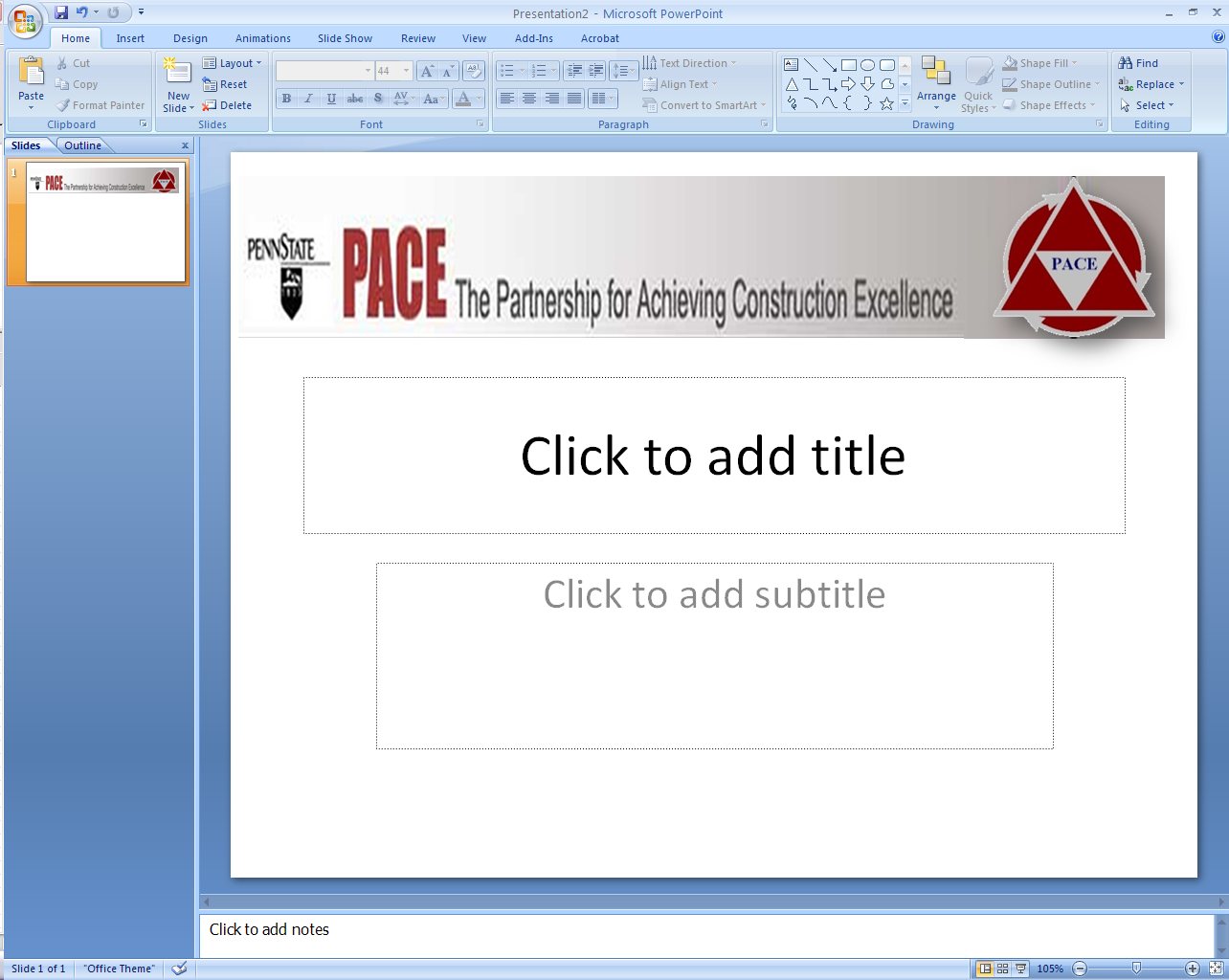
**[AUTHOR COMPANY]**

This template is a tool that is provided to assist in the development of a BIM project execution plan as required per contract. The template plan was created from the buildingSMART alliance™ (bSa) Project “BIM Project Execution Planning” as developed by The Computer Integrated Construction (CIC) Research Group of The Pennsylvania State University. The bSa project is sponsored by The Charles Pankow Foundation (<http://www.pankowfoundation.org>), Construction Industry Institute (CII) (<http://www.construction‐institute.org>), Penn State Office of Physical Plant (OPP) (<http://www.opp.psu.edu>), and The Partnership for Achieving Construction Excellence (PACE) (<http://www.engr.psu.edu/pace>). The BIM Project Execution Planning Guide can be downloaded at <http://www.engr.psu.edu/BIM/PxP>.

This coversheet can be replaced by a company specific coversheet that includes at a minimum document title, project title, project location, author company, and project number.

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**PLEASE REPLACE WITH YOUR OWN COVER**

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**BIM PROJECT EXECUTION PLAN**

**Version 2.0**

FOR

**[PROJECT TITLE]**

DEVELOPED BY

**[AUTHOR COMPANY]**

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Section A: BIM Project Execution Plan Overview

1. **Reason For BIM Project Execution Plan:**

To successfully implement Building Information Modeling (BIM) on a project, the project team has developed this detailed BIM Project Execution Plan. The BIM Project Execution Plan defines uses for BIM on the project (e.g. design authoring, cost estimating, and design coordination), along with a detailed design of the process for executing BIM throughout the project lifecycle.

[INSERT ADDITIONAL INFORMATION HERE IF APPLICABLE. FOR EXAMPLE: BIM MISSION STATEMENT This is the location to provide additional BIM overview information. Additional detailed information can be included as an attachment to this document.

Please note: Instructions and examples to assist with the completion of this guide are currently in grey. The text can and should be modified to suit the needs of the organization filling out the template. If modified, the format of the text should be changed to match the rest of the document. This can be completed, in most cases, by selecting the normal style in the template styles.

1. **Mission Statement For Project**

Section B: Project Information

This section defines basic project reference information and determined project milestones.

1. Project Owner:
2. Project Name:
3. Project Location and Address:
4. Contract Type / Delivery Method:
5. Brief Project Description: [NUMBER OF FACILITIES, GENERAL SIZE, ETC]
6. **Additional Project Information:** [UNIQUE BIM PROJECT CHARACTERISTICS AND REQUIREMENTS]
7. Project Schedule / Phases / Milestones:

Include BIM milestones, pre-design activities, major design reviews, stakeholder reviews, and any other major events which occur during the project lifecycle.

|  |  |  |  |
| --- | --- | --- | --- |
| **PROJECT PHASE /**  **MILESTONE** | **ESTIMATED START DATE** | **ESTIMATED COMPLETION DATE** | **PROJECT STAKEHOLDERS INVOLVED** |
| PRELIMINARY PLANNING |  |  | ALL |
| DESIGN DOCUMENTS |  |  | ALL |
| CONSTRUCTION DOCUMENTS |  |  | ALL |
| CONSTRUCTION |  |  | ALL |
|  |  |  | ALL |

Section C: Key Project Contacts

List of lead BIM contacts for each organization on the project. Additional contacts can be included later in the document.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Contact Name** | **Location** | **E-Mail** | **Phone** |
| Architect |  |  |  |  |
| Landscape Architect |  |  |  |  |
| Structural |  |  |  |  |
| Mechanical |  |  |  |  |
| Lighting / Electrical |  |  |  |  |
| Construction |  |  |  |  |
| Owner Rep / Facility | Robert Holland | 204 Engineering Unit A | RHolland@engr.psu.edu |  |
| Other project contacts |  |  |  |  |

Section D: Project Goals / BIM Uses

Describe how the BIM Model and Facility Data are leveraged to maximize project value (e.g. design alternatives, life-cycle analysis, scheduling, estimating, material selection, pre-fabrication opportunities, site placement, etc.) Reference [**bim.psu.edu**](http://bim.psu.edu/Project/resources/default.aspx) for BIM Goal & Use Analysis Worksheet.

1. **Major BIM Goals / Objectives:**

State Major BIM Goals and Objectives

|  |  |  |
| --- | --- | --- |
| **PRIORITY**  **(HIGH/ MED/ LOW)** | **GOAL DESCRIPTION** | **POTENTIAL BIM USES** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. **BIM Use Analysis Worksheet: Attachment 1**

Reference [**bim.psu.edu**](http://bim.psu.edu/Project/resources/default.aspx) for BIM Goal & Use Analysis Worksheet. Attach BIM Use analysis Worksheet as Attachment 1. bim.psu.edu/project

1. **BIM Uses:**

Highlight and place an X next to the additional BIM Uses to be developed by the use of the BIM model as selected by the project team using the BIM Goal & Use Analysis Worksheet. See BIM Project Execution Planning Guide at [bim.psu.edu/Uses](http://bim.psu.edu/Uses/default.aspx) for Use descriptions. Include additional BIM Uses as applicable in empty cells.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **X** | **PLAN** | **X** | **DESIGN** | **X** | **CONSTRUCT** | **X** | **OPERATE** |
|  | **PROGRAMMING** |  | **DESIGN AUTHORING** |  | **SITE UTILIZATION PLANNING** |  | **BUILDING MAINTENANCE SCHEDULING** |
|  | **SITE ANALYSIS** |  | **DESIGN REVIEWS** |  | **CONSTRUCTION SYSTEM DESIGN** |  | **BUILDING SYSTEM ANALYSIS** |
|  |  |  | **3D COORDINATION** |  | **3D COORDINATION** |  | **ASSET MANAGEMENT** |
|  |  |  | **STRUCTURAL ANALYSIS** |  | **DIGITAL FABRICATION** |  | **SPACE MANAGEMENT / TRACKING** |
|  |  |  | **LIGHTING ANALYSIS** |  | **3D CONTROL AND PLANNING** |  | **DISASTER PLANNING** |
|  |  |  | **ENERGY ANALYSIS** |  | **RECORD MODELING** |  | **RECORD MODELING** |
|  |  |  | **MECHANICAL ANALYSIS** |  |  |  |  |
|  |  |  | **OTHER ENG. ANALYSIS** |  |  |  |  |
|  |  |  | **SUSTAINABLITY (LEED) EVALUATION** |  |  |  |  |
|  |  |  | **CODE VALIDATION** |  |  |  |  |
|  | **PHASE PLANNING**  **(4D MODELING)** |  | **PHASE PLANNING**  **(4D MODELING)** |  | **PHASE PLANNING**  **(4D MODELING)** |  | **PHASE PLANNING**  **(4D MODELING)** |
|  | **COST ESTIMATION** |  | **COST ESTIMATION** |  | **COST ESTIMATION** |  | **COST ESTIMATION** |
|  | **EXISTING CONDITIONS MODELING** |  | **EXISTING CONDITIONS MODELING** |  | **EXISTING CONDITIONS MODELING** |  | **EXISTING CONDITIONS MODELING** |

Section E: Organizational Roles / Staffing

Determine the project’s BIM Roles/Responsibilities and BIM Use Staffing

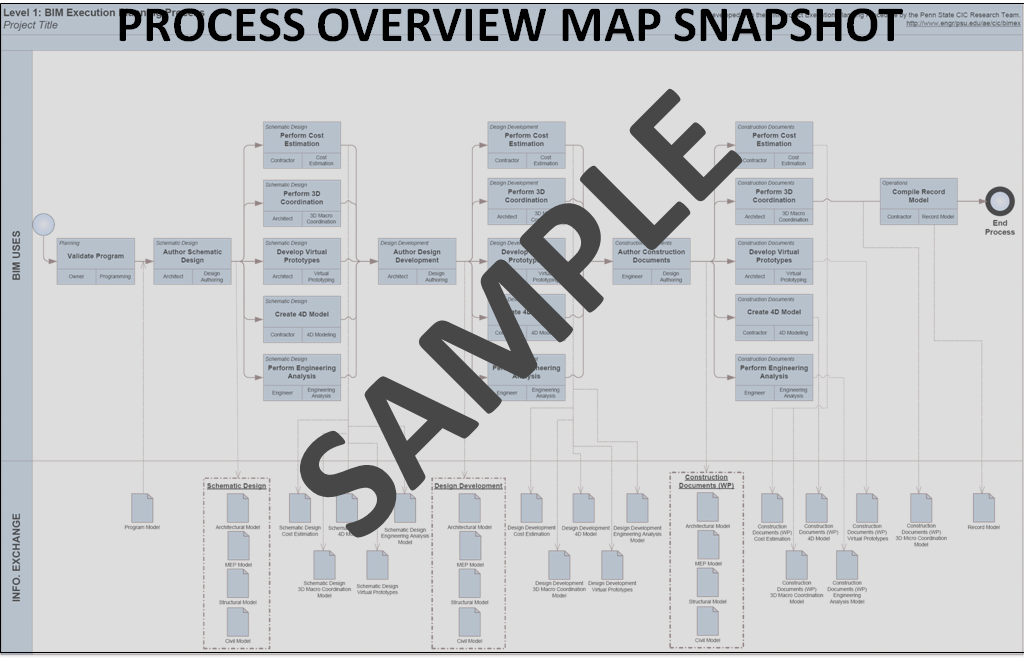
1. **BIM Roles and Responsibilities:**

Describe BIM roles and responsibilities such as BIM Managers, Project Managers, Draftspersons, etc.

Section F: BIM Process Design

Provide process maps for each BIM Use selected in section D: Project Goals/BIM Objectives. These process maps provide a detailed plan for execution of each BIM Use. They also define the specific Information Exchanges for each activity, building the foundation for the entire execution plan. The plan includes the Overview Map (Level 1) of the BIM Uses, a Detailed Map of each BIM Use (Level 2), and a description of elements on each map, as appropriate. Level 1 and 2 sample maps are available for download at [**bim.psu.edu**](http://bim.psu.edu/Project/resources/default.aspx)  (Please note that these are sample maps and should be modified based on project specific information and requirements). Please reference Chapter Three: Designing BIM Project Execution Process in the BIM Project Execution Planning Guide found at [**bim.psu.edu**](http://bim.psu.edu/Project/resources/default.aspx)

1. **Level One Team Process Overview Map: Attachment 2**

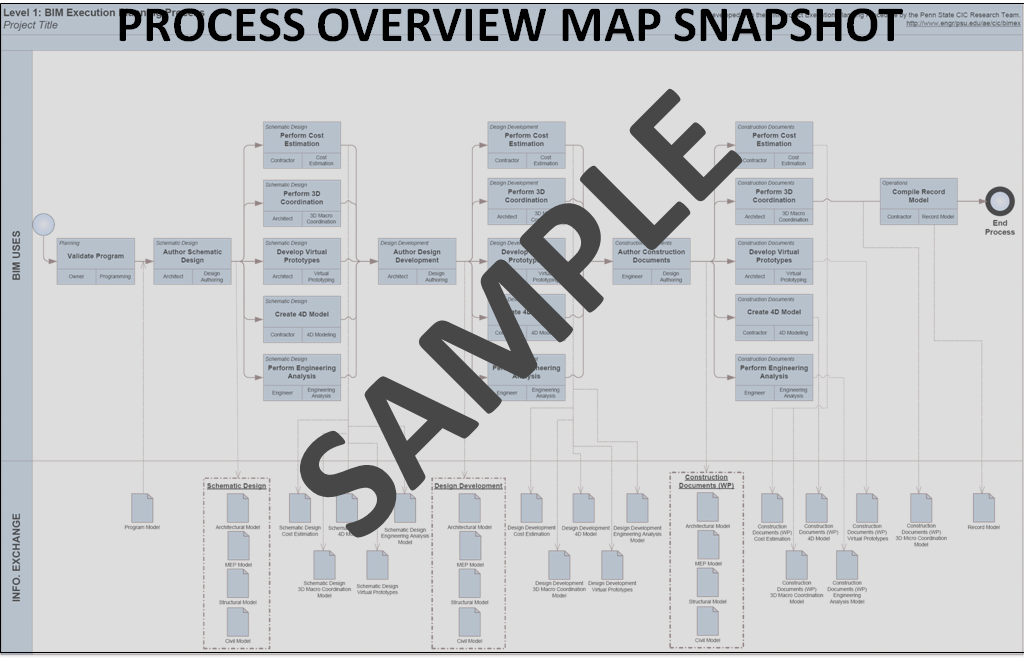


1. **List of Level Two – Detailed TEAM MEMBER Process Map(s): Attachment 3**

The following are examples. Modify for specific project. Some Process Maps may need to be removed, while some process maps may need to be added.

* 1. Architect
  2. Landscape Architect
  3. Structural
  4. Lighting Electrical
  5. Mechanical
  6. Construction

1. **Level One BIM Process Overview Map: Attachment 4**



1. **List of Level Two – Detailed BIM Use Process Map(s): Attachment 5**

The following are examples. Modify for specific project. Some Process Maps may need to be removed, while some process maps may need to be added.

* 1. Existing Conditions Modeling
  2. Cost Estimation
  3. Phase Planning (4D Modeling)
  4. Programming
  5. Site Analysis
  6. Design Reviews
  7. Design Authoring
  8. Energy Analysis
  9. Structural Analysis
  10. Lighting Analysis
  11. 3D Coordination
  12. Site Utilization Planning
  13. 3D Control and Planning
  14. Record Modeling
  15. Maintenance Scheduling
  16. Building System Analysis

[Delete unused or add additional process maps from list]

Section G: BIM Information Exchanges

Model elements by discipline, level of detail, and any specific attributes important to the project are documented using information exchange worksheet. See Chapter Four: Defining the Requirements for Information Exchanges in the BIM Project Execution Planning Guide for details on completing this template.

1. **BIM Use Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **BIM Use** | **Requirements** | **Sender** | **Receiver** |
|  |  |  |  |
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Section I: Collaboration Procedures

1. **Collaboration Strategy:**

Describe how the project team will collaborate. Include items such as communication methods, document management and transfer, and record storage, etc.

1. **Team Decision Making Process:**
2. **Meeting Procedures:**

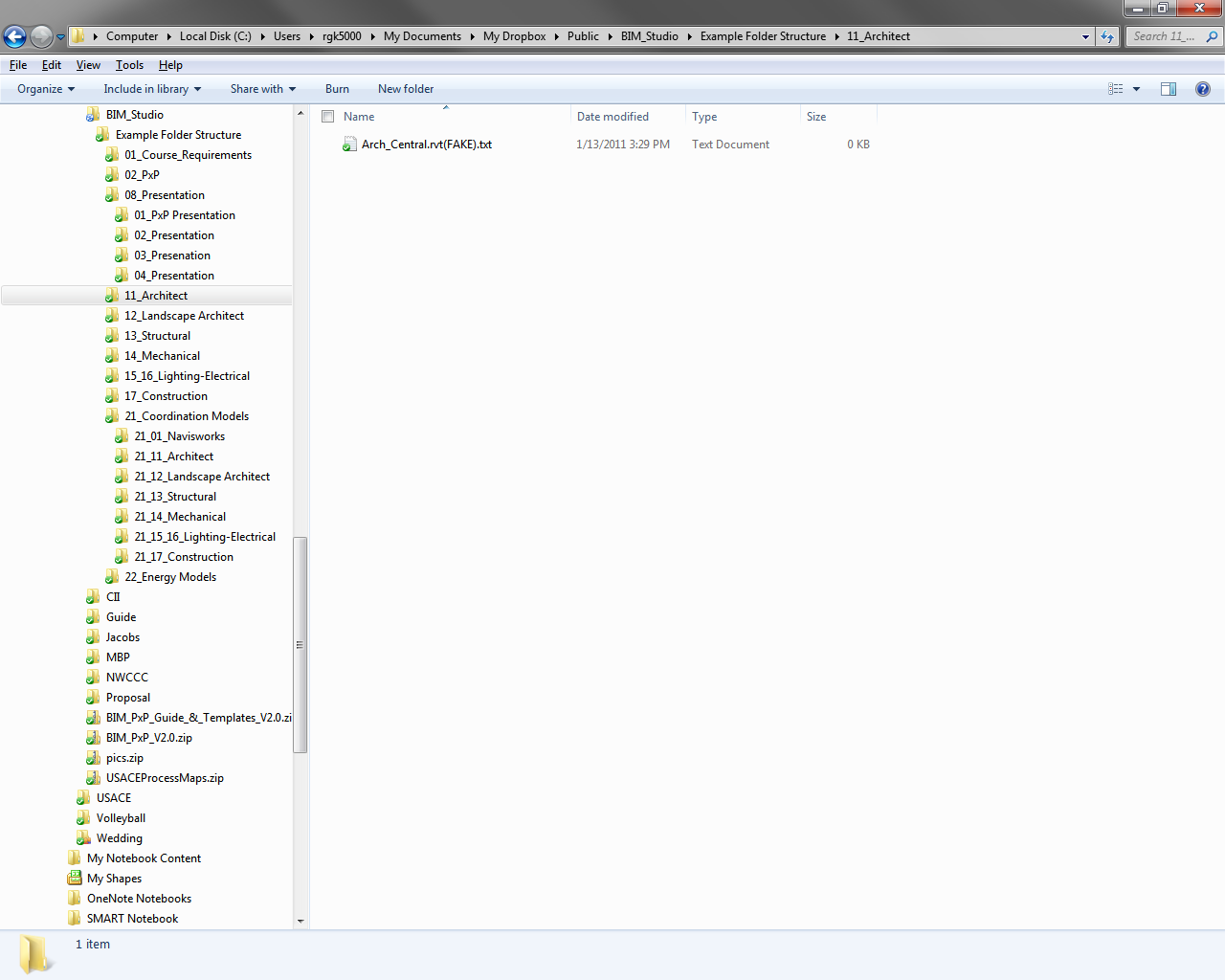
The following are examples of meetings that should be considered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MEETING TYPE** | **PROJECT STAGE** | **FREQUENCY** | **PARTICIPANTS** | **LOCATION** |
| BIM REQUIREMENTS KICK-OFF |  |  |  |  |
| BIM EXECUTION PLAN DEMONSTRATION |  |  |  |  |
| DESIGN COORDINATION |  |  |  |  |
| CONSTRUCTION OVER-THE-SHOULDER PROGRESS REVIEWS |  |  |  |  |
| ANY OTHER BIM MEETINGS THAT OCCURS WITH MULTIPLE PARTIES |  |  |  |  |
|  |  |  |  |  |

1. **Electronic Communication Procedures:**

(Note: File Naming and Folder Structure will be discussed in Section L: Model Structure).

The following document management issues should be resolved and a procedure should be defined for each: Permissions / access, File Locations, FTP Site Location(s), File Transfer Protocol, File / Folder Maintenance, etc.



1. **Model Structure:**

Determine and list the structure for model file names. Describe and diagram how the Model is separated, e.g., by building, by floors, by zone, by areas, and/or discipline.

Section M: Project Deliverables

In this section, list the BIM deliverables for the project and the format in which the information will be delivered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BIM SUBMITTAL ITEM** | **STAGE** | **Approximate Due Date** | **FORMAT** | **NOTES** |
|  | Design Development |  |  |  |
|  | Construction  Documents |  |  |  |
|  | Construction |  |  |  |
| Record Model | Close out |  | (.xyz) | See Record Model Information Exchange to ensure that the proper information is contained in this model |
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Section O: Attachments

1. **BIM USE SELECTION WORKSHEET** [FROM SECTION D]
2. **LEVEL 1 PROCESS OVERVIEW MAP** [FROM SECTION F]
3. **LEVEL 2 DETAILED BIM USE PROCESS MAP(S)** [FROM SECTION F]
4. **LEVEL 1 PROCESS OVERVIEW MAP** [FROM SECTION F]
5. **LEVEL 2 DETAILED BIM USE PROCESS MAP(S)** [FROM SECTION F]